

PEILUN DAI

111 Cummington Mall, Boston, MA 02215
+1 (857) 928-0795 ◊ peilun@bu.edu ◊ peilundai.com

EDUCATION

- Boston University, Boston, MA, USA** 9/2018 - Present
Graduate Student (PhD) in Computer Science
Advisor: Prof. Sang “Peter” Chin
Department of Computer Science & Graduate School of Arts and Sciences
- Massachusetts Institute of Technology, Cambridge, MA, USA** 9/2015 - 9/2018
Master of Science (SM) in Brain and Cognitive Sciences
Advisor: Prof. Edward S. Boyden
Department of Brain and Cognitive Sciences
- Nanyang Technological University, Singapore** 9/2010 - 5/2014
Bachelor of Engineering (B.Eng., 1st Class Hons) in Electrical and Electronic Engineering
Final Year Project supervisor: Prof. Gang Wang
School of Electrical and Electronic Engineering

WORK

- MIT Media Lab, Cambridge, MA, USA** 9/2016 - 9/2018
Graduate Research Assistant, Synthetic Neurobiology Group
Optical connectomics theory, zebrafish behavior
- Institute for Infocomm Research, Singapore** 8/2014 - 7/2015
Research Engineer
Project title: “Reverse Engineering Visual Intelligence for cognitive Enhancement (REVIVE)”
- Advanced Digital Sciences Center, Singapore** 5/2013 - 8/2013
Research Internship
Project title: “Object detection in videos with supervoxel segmentation and CRF”
- Panasonic R&D Center Singapore, Singapore** 9/2012 - 12/2012
Industrial Attachment Program
Project title: “Registration of low-resolution depth images with high-resolution RGB images”
- Singapore-MIT Alliance for Research and Technology, Singapore** 5/2011 - 8/2011
Undergraduate Research Fellowship Program
Project title: “Situation reactive traffic-light control of multi-junctions”

TRAINING

- Brain, Minds and Machines Summer Course, Woods Hole, MA, USA** 8/2018
Trainee
Organized by the Center for Brains, Minds and Machines at MIT; The goal of this course is to help produce a community of leaders that is equally knowledgeable in neuroscience, cognitive science, and computer science and will lead the development of true biologically inspired AI.

IEEE SPS Winter School on Visual Image Search and Visual Analytics, Singapore 12/2014
Trainee

Organized by Rapid-Rich Object Search (ROSE) Lab at the Nanyang Technological University in Singapore, and co-sponsored by TENCENT and the IEEE Signal Processing Society; Classes taught by leading researchers in image processing and computer vision.

TOOLS

Computer Languages Python, MATLAB
Software & Tools L^AT_EX, Keras, TensorFlow, PyTorch, Torch, OpenCV

TEACHING

9.012 Cognitive Science Fall 2017
Teaching Assistant

Introductory cognitive science course for first-year PhD students in neuroscience and cognitive science at MIT; comprised of three sections on cognition, vision and language.

9.40 Introduction to Neural Computation Spring 2017
Teaching Assistant

Introductory computational neuroscience course for MIT undergraduates from both biological sciences and computational sciences.

PUBLICATIONS

- [1] Young-Gyu Yoon, Peilun Dai, Jeremy Wohlwend, Jae-Byum Chang, Adam H Marblestone, and Edward S Boyden. Feasibility of 3d reconstruction of neural morphology using expansion microscopy and barcode-guided agglomeration. *Frontiers in computational neuroscience*, 11:97, 2017.
- [2] Keng-Teck Ma, Liyuan Li, Peilun Dai, Joo-Hwee Lim, Chengyao Shen, and Qi Zhao. Multi-layer linear model for top-down modulation of visual attention in natural egocentric vision. In *Image Processing (ICIP), 2017 IEEE International Conference on*, pages 3470–3474. IEEE, 2017.
- [3] Bappaditya Mandal, Rosary Yuting Lim, Peilun Dai, Mona Ragab Sayed, Liyuan Li, and Joo Hwee Lim. Trends in machine and human face recognition. In *Advances in Face Detection and Facial Image Analysis*, pages 145–187. Springer, Cham, 2016.